

## § 62.35–40 Fuel systems.

(a) *Level alarms.* Where high or low fuel tank level alarms are required, they must be located to allow the operator adequate time to prevent an unsafe condition.

(b) *Coal fuels.* (1) Controls and instrumentation for coal systems require special consideration by the Commandant (G-MSE).

(2) Interlocks must be provided to ensure a safe transfer of machinery operation from one fuel to another.

(c) *Automatic fuel heating.* Automatic fuel heating arrangements must meet section 41.78.1 of the American Bureau of Shipping's "Rules for Building and Classing Steel Vessels."

(d) *Overflow prevention.* Fuel oil day tanks, settlers, and similar fuel oil service tanks that are filled automatically or by remote control must be provided with a high level alarm that annunciates in the machinery spaces and either an automatic safety trip control or an overflow arrangement.

[CGD 81-030, 53 FR 17838, May 18, 1988, as amended by CGD 95-072, 60 FR 50463, Sept. 29, 1995; CGD 96-041, 61 FR 50728, Sept. 27, 1996]

## § 62.35–50 Tabulated monitoring and safety control requirements for specific systems.

The minimum instrumentation, alarms, and safety controls required for specific types of systems are listed in Table 62.35–50.

TABLE 62.35–50—MINIMUM SYSTEM MONITORING AND SAFETY CONTROL REQUIREMENTS FOR SPECIFIC SYSTEMS (NOTE 1)

System	Service	Instrumentation	Alarm	Safety control	Notes
Main (Propulsion) boiler	(1) .....	(1) .....	(1) .....	.....	(2)
	Supply casing and uptakes .....	.....	Fire .....	.....	
	Burner flame .....	Status .....	Failure .....	Burner auto trip .....	(3)
	Burner seating .....	.....	Failure .....	.....ditto .....	(3)
	Trial for ignition .....	Status .....	Failure .....	.....ditto .....	
	Control power .....	Available (pressure) .....	Failure (low) .....	.....ditto .....	(3)
	.....	.....	.....	Manual trip .....	(3)
	Burner valve .....	Open/closed. Status. Program control interlock. Status. .....	.....	.....	
Main (Propulsion steam) turbine.	(2) .....	(2) .....	(2) .....	.....	(4, 5)
Main propulsion, diesel	(1) .....	(1) .....	(1) .....	Manual trip. ....	(4, 5)
Main propulsion, remote control.	.....	.....	Failure .....	Manual trip. ....	
.....	Auto safety trip override. ....	.....	Activated. ....	.....	
.....	Starting power .....	Pressure (voltage) ....	Low .....	Limit .....	(2)
.....	Location in control .....	Status .....	Override .....	.....	(6)
.....	Shaft speed/direction/pitch. ....	(3) .....	(3) .....	(3). ....	
Main propulsion, electric	Clutch fluid .....	Pressure .....	Low. ....	.....	
Main propulsion, shafting.	(4) .....	(4) .....	(4) .....	(4) .....	(7)
.....	Stern tube oil tank level. ....	.....	Low. ....	.....	
.....	Line shaft bearing ....	Temperature .....	High. ....	.....	
.....	.....	Forced lubrication Pressure. ....	Low. ....	.....	
Main propulsion, controllable pitch propeller.	Hydraulic oil .....	Pressure .....	High, Low. ....	.....	
Generators .....	.....	Temperature .....	High. ....	.....	
.....	Ship service .....	(1) .....	(1). ....	.....	
.....	.....	Starting pressure/voltage. ....	Low. ....	.....	
.....	.....	.....	Tripped. ....	.....	
.....	Emergency .....	(5) .....	(5) .....	(5). ....	
.....	Turbogenerator .....	(1,6) .....	(1,6) .....	(6). ....	
.....	.....	.....	.....	Manual trip. ....	
.....	Diesel .....	(1,7) .....	(1,7) .....	(7) .....	(5)
.....	.....	.....	.....	Manual trip. ....	
Auxiliary boiler .....	.....	Run .....	Trip .....	.....	(12)
Gas turbine .....	(8) .....	(8) .....	(8) .....	(8) .....	(5)